

SPECIFICATION AMENDMENTS

Please replace the paragraph on page 7 of the specification beginning on line 3 with the following paragraph. No new matter is added.

A pier-cap stabilizer is driven with force down over the pier shaft until the top of the pier meets a stop pin secured in the pier cap. A platform screw jack is placed ~~on~~ on top of the pier cap under the footing or foundation. The jack screws are extended down onto the pier cap until the required support contact is achieved between the pier cap stabilizer and the footing or foundation.

Please replace the paragraph on page 8 of the specification beginning on line 14 with the following paragraph. No new matter is added.

Figure 5 depicts a preferred manner of installing a pier cap stabilizer on to a helical pier in accordance to a preferred ~~[[e]]~~ present embodiment of the invention.

Please replace the three paragraphs beginning on page 11 line 4 through page 12 line 6 with the following paragraphs. No new matter is added.

Figure 2 depicts a preferred manner of preparing a structural footing 28 to receive pier shaft 6 of a present embodiment of the invention. Footing 28 has a bottom surface 30. An excavated area 32 is dug around footing 28 in order to install helical pier 2. A notch 34 is formed in footer 28 in order to guide and stabilize pier shaft 6 as it is driven into earth 36. It is

possible to form notch 34 in a variety of ways. One preferred method is through using a concrete saw. Alternatively, a concrete drill or a concrete chipping device could function to form notch 34. Other known ways of forming a notch in concrete can be used such as using a concrete core drill to form a hole. Note that excavated area 32 is dug around and below footer 28 to expose the bottom surface of footer 28.

Figure 3 depicts a preferred manner of installing helical pier 2 in accordance to a preferred present embodiment of the invention. Helical pier 2 is shown positioned in notch 34. Pier shaft 6 is driven into earth 36 by torque motor 38. Through rotating helical pier 2 with motor 38, helix 4 screws its way down through earth 36 until the pier's 2 frictional resistance equals the compression weight of the structure. During this screw process, notch 34 serves to guide and stabilize pier shaft 6 during the operation. Note that during this stage in the process of installing pier 2, only helix 4 and pier shaft 6 are involved. Note that in Figure 3 it is desirable to install pier 2 at an angle in order to accommodate motor 38.

Figure 4 depicts an installed pier shaft 6 and helix assembly 4 in accordance to a preferred present embodiment of the invention. Once helix 4 screws its way down through earth 36 until the pier's 2 frictional resistance equals the compression weight of the structure, the top of pier shaft 6 is cut off below the bottom surface 30 of footer 28. At this stage, the installation of pier shaft 6 and helix assembly 4 is complete.

Please replace the paragraph on page 13 of the specification beginning on line 1 with the following paragraph. No new matter is added.

Figure 6 depicts a preferred present embodiment of the invention in a preferred manner of installation where a jack screw 15 is placed on a pier cap stabilizer 8. At this stage of installation, clamp 26 is fastened to footer 28 with one or more bolts 27. Clamp 26 functions to secure the top of pier cap stabilizer 8 to footer 28. Jack screw 15 is positioned such that jack platform 16 is at the top and threaded shafts 20 extend toward the bottom. The threaded shafts 20 rest upon shelf 12. Note that pier cap stabilizer 8 is driven down on pier shaft 6 such that bolt 10 rests upon the top surface of pier shaft 6.

Please replace the paragraph on page 17 of the specification beginning on line 11 with the following paragraph. No new matter is added.

Figure 15 depicts an alternative embodiment of the present invention at a stage of installation where shelf structure 50 is installed on pier shaft 6. At this stage of installation, pier shaft 6 and helix 4 have been driven to a depth where pier shaft 6 reaches bedrock or until the pier's frictional resistance equals the compression weight of the structure. Pier shaft 6 is then cut off at the top just below footer 28. Separating shelf structure 50 from cap stabilizer assembly 46 eliminates the need to rotate shelf 12 into position under footer 28 as is required by a preferred embodiment of the present invention.

Please replace the two paragraphs beginning on page 21 of the specification line 9 and ending on page 22 line 4 with the following two paragraphs. No new matter is added.

Figure 22 illustrates an installation of screw jack ~~platform~~ assembly 15 on pier cap stabilizer 64 and straight pier 60 where hydraulic ram 40 lifts footing 28 with respect to pier cap stabilizer 64. Screw jack ~~platform~~ assembly 15 is positioned on shelf 70. A bag 44 of cement or other construction material is placed on top of screw jack platform 16 in order to compensate for the uneven surface on the bottom of footer 28. Hydraulic ram 40 presses jack platform 16 against the base of footer 28. Then hydraulic ram 40 pushes footer 28 upwards against shelf 70, thereby raising the building. The building is raised by hydraulic ram 40 until such time as the settling of the building is compensated fully. Nuts 22 welded to jack sleeves 24 are then rotated to put jack sleeves in contact against shelf 70. With jack sleeves extended against shelf 70, screw jack 15 can support the weight of footer 28 without the presence of ram 40.

Figure 23 illustrates an installation of screw jack ~~platform~~ assembly 15 on pier cap stabilizer 64 and straight pier 60. In this stage of installation, hydraulic ram 40 is removed, thereby leaving footer 28 resting on jack ~~platform~~ assembly 15. The weight of the building is then transferred to bedrock 88 through jack ~~platform~~ assembly 15, pier cap stabilizer 64, and straight pier 60. A pin or bolt 27 extends through plate 26 in order to bolt a top portion of straight pier 64 to footer 28, thereby providing additional structural stability.

Please replace the paragraph on page 22 of the specification beginning on line 17 with the following paragraph. No new matter is added.

Figure 25 illustrates a pier cap stabilizer shelf 12/70 having screw jack guides 96. Jack sleeves 24 are hollow tubes. Screw jack guides 96 are rods that are attached to pier cap stabilizer shelf 12/70. Screw jack guides 96 have a diameter slightly smaller than the inner diameter of jack sleeves 24 so that jack sleeves 24 fit over screw jack guides 96. Screw jack guides are provided to provide a precise location for positioning jack sleeves 24 on shelf 12/70 and to ensure that jack sleeves 24 do not move when screw jack ~~platform~~ assembly 15 is placed on shelf 12/70. While two screw jack guides 96 are shown as an example, other numbers and configurations of screw jack guides 96 on shelf 12/70 are possible.